

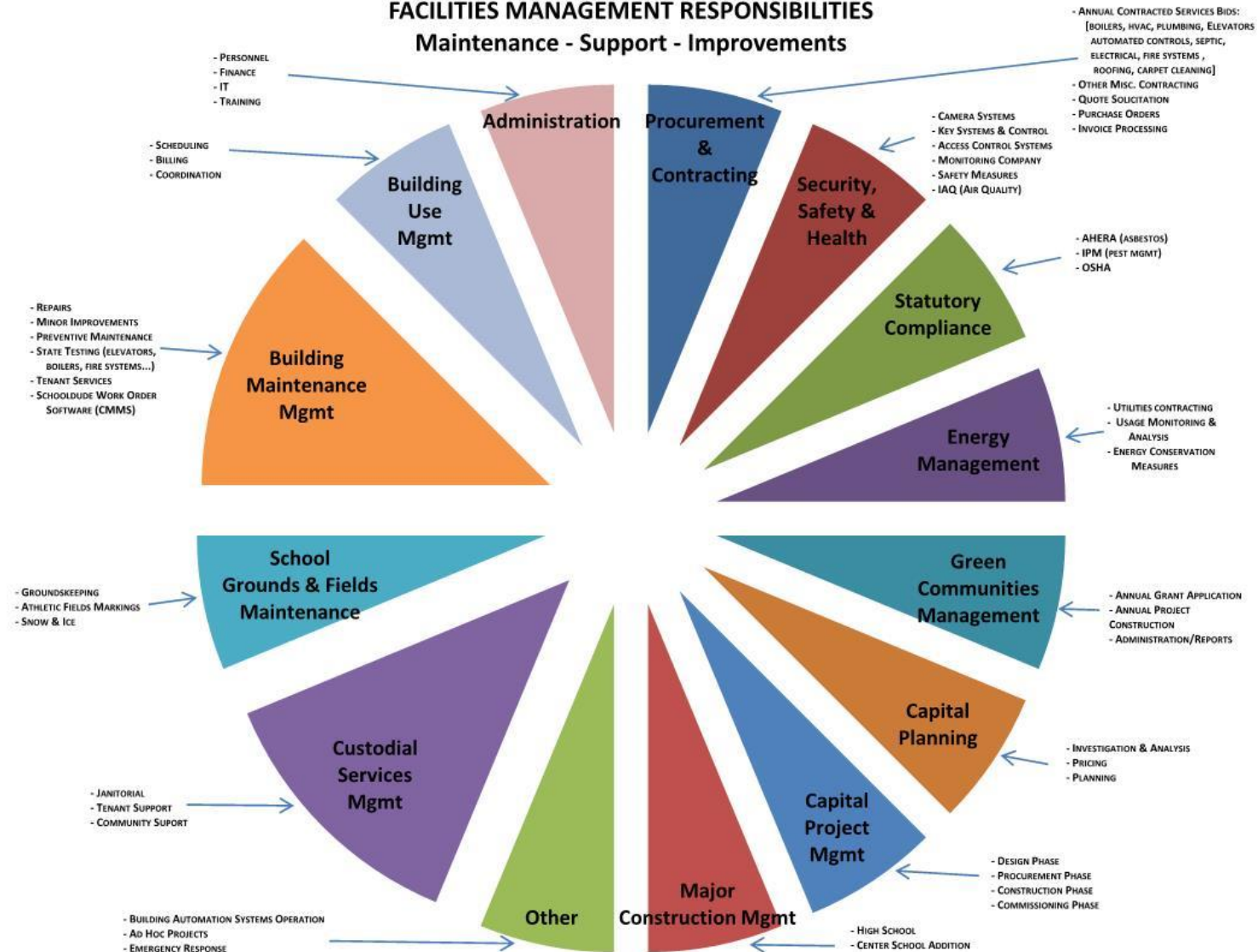
# Town of Hanover Facilities Department

Robert F. Murray, PE  
Facilities Engineering Manager

Presentation to the Board of Selectmen  
4/6/16

# FACILITIES MANAGEMENT RESPONSIBILITIES

## Maintenance - Support - Improvements



## **1. FACILITIES DEPARTMENT**

a. FY16 Budget: \$3,635,096

i. Salary: \$1,783,472

ii. Expenses: \$1,851,624

b. Personnel (36)

i. Administrative Assistant

ii. Deputy Superintendent

1. Foreman, Maintenance

a. 3 Skilled Maintenance Workers

2. Foreman, Custodial

a. 22 Full Time Custodians + 6 PT Custodians

**c. Buildings/Facilities (~24)**

i. 6 School Facilities

1. Buildings

2. Grounds

ii. 18 Municipal buildings

1. Town Hall

2. JC Library

3. Senior Center

4. Police Station

5. Stetson House

6. 4 Fire Stations

7. 5 Water Dept buildings

8. Highway (Ames Way)

9. Transfer Station

10. Recreation Dept Facilities

11. FPP Pavilion

## **2. Administration**

- a. FY16: Assume Full Departmental Administration
  - i. Monthly spending: ~ \$4 - 500,000
    - 1. Ordering, Processing, Accounting & Verification
  - ii. Weekly personnel payroll
    - 1. ~ \$55,000/week

### **3. Facilities Rental Management**

- a. Process all unscheduled use of school facilities
  - i. Interior rooms
  - ii. Ball fields
- b. Facilities Scheduling software
  - i. Approval, pricing, coordination, activity support, invoicing, accounting
  - ii. Payments to School Building Use Revolving Account
    - 1. Funds Custodial Overtime for events

#### **4. Building Maintenance Management**

- a. Work Order System: [SchoolDude.com](http://SchoolDude.com)



Hanover Facilities Department

Maint Request

Schedule Request

My Requests

Settings

HELP

Legend ▾

## Maintenance Request

## Welcome to the Town of Hanover Facilities Dept, Maintenance Request Page

USE THIS FORM TO SUBMIT WORK REQUESTS FOR MATTERS INVOLVING MAINTENANCE AND CUSTODIAL NEEDS IN YOUR BUILDING. (Please do not submit requests involving IT, computer, or audio-visual systems as they are handled through other means.) The Town of Hanover Facilities Department is committed to Customer Service and we intend to address your request promptly and to your full satisfaction. If you are not satisfied with our service we invite you to contact us at any time: Jerry Peterson (Deputy Superintendent for Facilities) or Bob Murray (Facilities Engineering Manager) at 781-857-5706. Thank you.

Step 1 Please be yourself, click [here](#) if you are not Bob Murray

First Name

Bob

Last Name

Murray

Email

robert.murray@hanover-ma.gov

Phone ☒

781-857-5706

Pager

781-635-2753

Mobile Phone

Step 2 Location ☒

Cedar Elementary School ▾

Area

1st Floor ▾

Area/Room Number ☒

Room 11

☐ Yes, remember my area entries for my next new request entry.Step 3 Select Problem Type: ☒

## Maintenance Help Desk:

Click [here](#) for Maintenance Emergency Contacts  
Click on the problem type below that best describes your issue.



Alarm



Asbestos



Boiler



Building Automation



Carpentry



Ceilings



Clocks/Bells



Custodial



Data Repair



Doors and Hardware



Electrical



Elevators



Equipment



Fire Alarm System

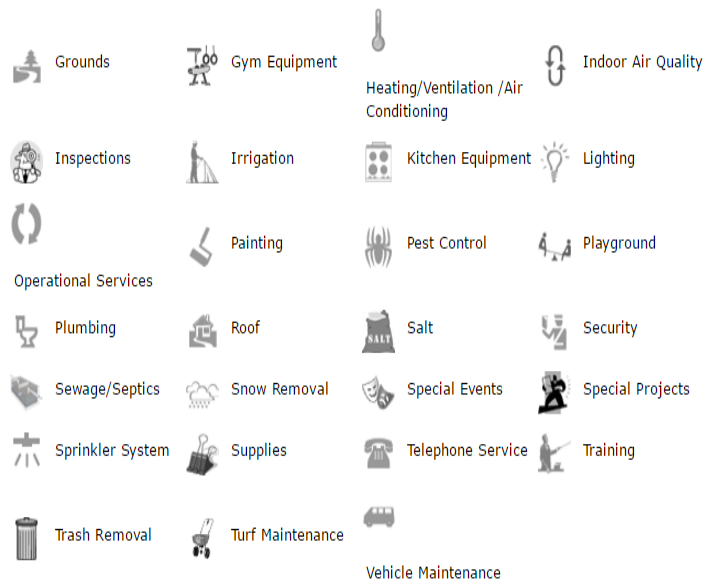


Fire Extinguishers



Floor Care





#### Maintenance Emergency

☐ Check here if this is an emergency or call any of the emergency contacts below.

Contact Name	Contact Phone
Jerry Peterson	781-635-8040
Bob Murray	781-424-3047

#### Step 4 Please describe your problem or request. ☒

Ceiling light in back of my classroom is flickering.

#### Step 5 Time Available for Maintenance

Any

#### Step 6 Submittal Password ☒

Forgot Password?

#### Step 7

You will be notified if this request is declined.

#### Legend

☒ Required Information

[Home](#) [Calendar](#) [New Work Order](#) [Reports](#) [Services](#) [Account Setup](#) [MyDude](#)Search for  [GO](#) [Advanced Search](#)[Services](#) | [Help](#)Actions: [Add](#) | [List](#) | [Graph](#) | [Report](#)

## What's New?



## SPECIAL NOTICE

On Friday, April 8th, SchoolDude Support will be closing at 3pm EDT time to allow our Support team to take part in The GoodDude initiative by packing meals for those in need. We thank you for your understanding & look forward to assisting you on Monday, April 11th when we resume our regular support hours of 8am-6pm EDT. To learn more, please visit [The GoodDude](#). Thank you!

## Need Training?

Do you need a refresher course to learn some new helpful hints? Then click here to view our FREE training services.

## Quick Launch

[New Request](#)  
[Print WO Batch](#)  
[Account Settings](#)  
[User Forum](#)  
[More Services](#)  
[My SchoolBuilding](#)  
[SchoolDude.com](#)

## LOGIN HERE

Hello Bob Murray!  
If you are not Bob Murray  
please click [here](#).

## WORK ORDERS BY STATUS

Last 10 Work Requests

Period:  All

Work In Process

## Request Totals

- ☒ 161 New Request
- 0 UNASSIGNED
- 158 In Approval Process
- 146 PMs
- ☒ 166 Work In Progress
- 9 PMs
- ☐ 10207 Complete
- 146 PMs
- ☐ 833 Closed Work Orders
- 4 PMs
- ☐ 133 Declined
- ☒ 1 Parts on Order
- ☐ 272 Duplicate Request
- 1 PMs
- ☐ 23 Void
- ☒ 3 On Hold
- ☒ 2 Waiting More Information
- ☒ 107 Open Extended
- ☐ 0 Pending
- ☐ 0 Waiting Funding
- ☒ 3 Deferred
- ☐ 0 Forwarded

[Refresh Pie](#)

Counts are based on Status Date for each selected period. This reflects the actual date of the last status change.



- New Request
- Work In Progress
- Parts on Order
- On Hold
- Waiting More Information
- Open Extended
- Deferred

## Did you know?

The first fluorescent tube light in the United States was unveiled by GE in 1934. Fluorescent lighting systems spread rapidly during World War II and by 1951 more light was produced in the US by fluorescent lamps than by incandescent lamps.

## ASSIGNED WORK

Note: Action Taken is saved when Save button is clicked.

Sort by  Request Age ☐ Ascending ☒ DescendingFilter  -- Select Status --

1 - 0 of total 0 listed

[First](#) [Prev 50](#) [Next 50](#) [Last](#)

No Work Orders yet.

[First](#) [Prev 50](#) [Next 50](#) [Last](#)

## WORK CENTER

CALENDAR

4/6/2016 WORK  
(Wednesday)

OPEN PM WORK 155

OTHER OPEN  
WORK 288TOTAL OPEN  
WORK 443

## Information Analysis

Areas  
Budget  
Buildings  
Classifications  
Crafts  
Employees  
Equipment  
Equipment Usage  
Groups  
Locations  
Manufacturers  
Outstanding Work  
Priority  
Projects  
Purpose  
Saved Actions  
Status  
Suppliers  
Types  
Transactions  
Work Load/Assignment  
Work Order

## Facility Description



Home Calendar **New Work Order** Reports Services Account Setup MyDude

Search for  Advanced Search

Services | Help

Actions: [Add](#) | [List](#) | [Graph](#) | [Report](#)

**Work Order**

[Shortcuts](#)

[Related Links](#)

[Legend](#)

**Add/Update Work Order**

Work Order: 10000

[Save](#) [Reset](#) [First](#) [Prev](#) [Next](#) [Last](#)

**Status** ☒

Complete

**Status Date**

6/9/2015 12:20:05 PM

**Status Last Changed By**

Jeff Botelho

**Date Last Printed**

6/9/2015 7:48:40 AM

**Priority** ☒

Medium

**Created By**

Jeff Botelho

**Date Created**

6/8/2015 3:24:43 PM

**Last Changed By**

Jeff Botelho

**Request Info**

**Location**

High School

**Building**

-- Select Building --

**Area**

Athletic Field

**Request Date**

6/8/2015

**Request Description** ☒

Hot water has strong odor of sulfur

**Area Number**

Concession Stand

☐ **Emergency?**

[Back to Shortcuts](#)

**Deferral**

**New Due Date**

**Deferred By**

**Reason for Deferral**

[Back to Shortcuts](#)

**Contact Info**

**Name**

(Select "OTHER" if requester not in list and type their name in field below.)

Jeff Botelho

**First Name**

**Last Name**

**Email**

[Back to Shortcuts](#)

### Contact Info

#### Name

(Select "OTHER" if requester not in list and type their name in field below.)

Jeff Botelho  

#### First Name

Jeff

#### Last Name

Botelho

#### Email

botelho@hanoverdpw.org


#### Phone

7812640521

#### Pager

#### Cellular Phone

7812640521

 [Survey Requester Now](#)

[Back to Shortcuts](#)

### Assignment Info

#### Assigned To


Botelho, Jeff ▼

☐ Route for approval or review?


#### Target Start Date

6/8/2015 

#### Requested Completion



#### Target Completion



#### Actual Completion

6/9/2015 

#### Estimated Costs

0.00

#### Estimated Hours

0.00

**Actual Costs: 60.45** (Note: Actual costs exclude tax amounts.)

**Actual Hours: 2.50**

**Total Costs: 60.45**

[Back to Shortcuts](#)

### Budget Info

#### Purpose

-- Select Purpose -- ▼

#### Craft

Plumbing ▼

#### Budget

-- Select Budget Account -- ▼

#### Facility Description

-- Select Facility Description -- ▼

#### Project

-- Select Project -- ▼

#### Equipment

#### Classification

<-- Select Classification --> ▼

#### Type

<-- Select Type --> ▼

[Back to Shortcuts](#)


### Action Taken

#### Action


Disconnected gas, water and flue piping from tank and drained. Added 5 pints of hydrogen peroxide and refilled the tank. Fired burner and ran to check for leaks.


[Back to Shortcuts](#)


### Message Center

 [New Message](#)

[Click on a Message to Reply](#)

 Work Order Completion Notification (10000) **SchoolDude Message Center** 6/9/2015 12:20:05 PM (0)

 Work order 10000 is Complete **SchoolDude Message Center** 6/9/2015 12:20:05 PM (0)

 WO Assignment - 10000 **SchoolDude Message Center** 6/8/2015 3:24:43 PM (0)

[Back to Shortcuts](#)

### Journal Notes

 [New Note](#)

#### **4. Building Maintenance Management**

- a. Work Order System: SchoolDude.com (i.e. SDude)
  - i. MySchoolBuilding.com - work request system for all employees
  - ii. SDude MaintenanceDirect – department work order system
- b. FY15: 2401 work orders completed
- c. FY16: 1905 work orders completed to date

#### **4. Building Maintenance Management**

- a. Work Order System: SchoolDude.com
- b. ...
- c. ...
- d. New: Computerized Preventive Maintenance Program
  - i. SDude PreventiveMaintenanceDirect.com
  - ii. ~1,100 items in 17 buildings
  - iii. Monthly, prints out work orders from MaintenanceDirect
    - 1. Work order has PM procedures/instructions
  - iv. Generally, we have 1 mechanic on PM's every day
  - v. Some equipment serviced that has never been before
  - vi. Critical requirement for MSBA schoolbuilding funding

## **5. School Grounds & Fields Maintenance**

- a. Maintain all school grounds
- b. Maintain all school ball fields and athletic venues
- c. Turf field maintenance – shared, contract & staff
- d. Snow & ice control for all school roads & lots

## **6. Custodial Services Management**

### **a. Personnel**

#### **i. 28 custodians: 22 FT + 6 PT**

1. Town Hall custodian assists at Fire HQ

2. Sylvester School night custodian, increased from 30 to 40 hours

### **b. Procedures**

#### **i. Foreman: hospital background; great instructor**

### **c. Supplies**

#### **i. Standardization**

ii. Pricing – participate in Quincy Collaborative Bid, very competitive pricing

iii. Inventory control – close monitoring, avoids excesses

### **d. Tenant support – setting up, moving, etc.**



## **7. Statutory Compliance**

- a. AHERA (Asbestos monitoring)
- b. IPM (Integrated Pest Management)
- c. EPA Source Emissions
- d. NEW: LCCA (Lead Contamination Control Act)
  - i. Sample water from all taps where water is accessible to students
  - ii. Test for lead & copper
  - iii. Lead “Action Limit”: 0.015 ppm
  - iv. Binder in every school
    - 1. Floor plan of school piping system (domestic water)
    - 2. Floor plan marking location of every tap (assign unique number to each)
    - 3. Test results
    - 4. Remediation efforts

## **8. Security, Safety & Health**

- a. Maintain security systems in all school buildings and town hall
- b. Keys, prox cards, codes
- c. Alarm monitoring

## **9. Procurement & Contracting**

### **a. Annual bid contracts:**

- a. Electrician, boiler service, HVAC service, septic service, fire systems, elevators/lifts, roofing, plumbing
- b. Other annual contracts, lower value: security systems, UPS (high school), phone, fire extinguishers, others
- c. Planning 2 new contracts this round: Pest control, and emergency generator servicing

## **10. Energy Management**

- a. Purchase supply of gas & electric
- b. Management of Building Automated Controls

## **11. Green Communities Management**

- a. Goal: 20% reduction in energy use.
- b. Since 2012: 30 projects, \$671,673 Total Project Value, \$515,547 grants (DOER) + \$147,412 utility incentives + \$8,714 Town funded.
- c. Savings 31,534 therms of Natural Gas; 338,259 kWh electricity
  - a. Estimated savings: \$86,000/year

- a. Green Communities projects this year (just completed):
  - i. Lights in 3 school gyms converted to LED w motion sensors
    - 1. 234 watts → 88 watts per light
  - ii. Lights in Highway/Ames Way converted to LED w motion sensors
    - i. Interior
    - ii. Exterior (including canopy on gas pumps)
  - iii. Lights in Water Bldg (219 Winter) converted to LED w motion sensors
  - iv. Lights in COA:
    - 1. Main Hall, 18 Pendant Lights converted to LED 304 → 90 watts
    - 2. Parking lot, 27 pole lights converted to LED 190 → 50 watts
  - v. Replaced heating boiler & gas water heater at Fire HQ with new high efficiency boiler/water heater (83% efficiency → 95% efficiency)

a. Proposed for FY17

i. 4 Projects

- i. Retrofit lighting, JC Library and Middle School
- ii. HVAC, Middle School
- iii. Replace boiler & water heater at Police Dept with high efficiency boiler

ii. \$275,000 total cost

- 1. Green Communities grant \$205,322
- 2. Utilities incentives \$69,768

## **12. Capital Planning**

- a. DRA study requires updating
- b. Consultant hired to assist
- c. Proposed projects
- d. Project Status



**FUNDED CAPITAL ARTICLES, WORK UNDERWAY OR COMPLETE**

ATM	Title	Status	Approp.	Paid/ Encumbered	Balance
7	STETSON HOUSE FUND YR #11 - To be used for improvements, maintenance, and repairs to building and property at 514 Hanover St.	Lighting upgrade project (by SS Votek) underway.	1,000	140	860
8	STETSON HOUSE FUND YR #11 - To be used for improvements, maintenance, and repairs to building and property at 514 Hanover St.	Lighting upgrade project (by SS Votek) underway.	1,000	0	1,000
9	STETSON HOUSE FUND YR #11 - To be used for improvements, maintenance, and repairs to building and property at 514 Hanover St.	Lighting upgrade project (by SS Votek) underway.	1,000	0	1,000
12	Middle Schl Floor Tile	Phase 1 completed; Phase 2 in design	490,000	146,616	343,384
13	Stetson House Air Conditioning	First floor complete; second floor pends	18,000	0	18,000
14	Fire HQ - Renovate Kitchen	Complete (closed)	50,000	50,000	0
14	Schools - Energy Mgmt Controls	Partially complete	120,000	8,754	111,246
14	Fire HQ - Generator	Construction imminent	140,000	112,000	132,955
15	Stetson House Electric Upgrade	Complete (closed)	10,000	805	9,195
15	Facilities Cargo Van Purch/Equip	Ordered; delivery imminent	29,000	0	29,000
15	Facilities 4x4 Rack Body Truck	Delivered (closed)	57,000	51,588	5,412
15	Town Hall - Upgrade Door Locks	Installation in 2 ~ weeks	70,000	61,906	70,000
15	Town Hall Restoration	Construction docs under development	1,085,000		

FUNDED CAPITAL ARTICLES, WORK PENDING			
ATM	Title	Status	Approp.
14	Town Hall - Hearing Room Improvements	In design	25,000
14	Town Hall - Replace Fire Alarm	Spec under development	18,000
15	Cedar School Roof	Spec under development	350,000
15	Middle Schl - Install Safety Bollards	Spec under development	20,000
15	Town Hall Security System	Spec under development	35,000
15	Library - Repair Window Curtain Wall	Spec under development	30,000

TOWN OF HANOVER, NEW KEYWAY MASTER PLAN, ALL BUILDINGS  
TOWN HALL SUBSET

Town Buildings  
Super Masterkey  
Town Hall  
E (9)

Other Town Buildings

# Master Keys	AH (5)	EA (3)	EB (2)	EC (3)	ED (3)	EE (4)	EF (3)
Group	Exterior Doors	Town Manager/BOS	IT	Finance	Community Svcs	Clerk	House Services
	All Exterior Doors	Town Manager Office (special key)	Office, IT Network (from Corridor)	Assessor Office	Veterans Office	Clerk	All Bathrooms
		Tn Mgr/BOS Suite Entry	Office, IT Network (from Advisory Rm)	Assessor Office	Planning Board	Clerk Storage Closet	
		Storage Closet (Key Box)	Office, IT (Tom Nee)	Treasurer Office (dual)	Health Office		Breakroom
		Selectmen Office (From Suite)		Treasurer Office (single)	Health Office (Suite Entry)		Mail Room
		Selectman Office (From Hearing Room)		Office (Chelsea Stevens) (Hallway)	Connecting Planning From Health		Kitchen
		Hearing Room Storage Closet		Office (Chelsea Stevens) (From Conference)	Health Office		Copy Room
		Hearing Room		Conference Room	ZBA		Custodian Closet
				Tax Collector	Conservation Office Suite		Entrance Vestibules
					Conservation Inner Office		Garage, from Corridor
					Hearing Room (Left)		SLOP SINK / COPY ROOM
					Hearing Room (Right)		Cross Corridor
					Storage inside		Corridor From Elevator To Offices
					Recreation Office		TEL / Electric
					Nurse		Storage Closet (Electric / Access Control Panel)
					ISD Building Department		Boiler Room
					ISD Building Department		ELEVATOR / STORAGE
					ISD Building Department		ELEVATOR Machine Room
					ISD Building Department		
					SLOP SINK / COPY ROOM		

GREAT GRAND  
 MASTER {4,096 }

CONTROL

Direct To "A"  
 Secured Areas

A {1,024} ( )  
 Schools Exterior  
 Master

B (256) ( )  
 Facilities

C (256) ( )  
 Admin. Building

D (4,096) ( )  
 SCHOOLS

E (256) ( )  
 Town Hall

F (256) ( )  
 Senior Center

G (256) ( )  
 Library

AA (16) ( )  
 Admin. Building

AB (16) ( )  
 Center School

AC (16) ( )  
 Sylvester School.

AD (16) ( )  
 Cedar School

AE (16) ( )  
 Middle School

AG (64) ( )  
 High School

AH (4) ( )  
 Town Hall

AHA (16) ( )  
 Athletics

AHB (4) ( )  
 General

AHC (4) ( )  
 Future

BA (16) (3)  
 Mech. Utility

BB (16) ( )  
 Shops

BC (64) (1)  
 Housekeeping

BD (16) ( )  
 Admin. Offices

BE (64) ( )  
 future

DA (64) ( )  
 Center School

DB (64) ( )  
 Sylvester School.

DC (16) ( )  
 Cedar School

DD (256) ( )  
 Middle School

DE (1,024) ( )  
 High School

DEA (16) ( )  
 Classrooms

DEB (64) ( )  
 Offices

DEC (4) ( )  
 Future

EA (16) ( )  
 Town Manager

EB (4) ( )  
 IT Offices

EC (16) ( )  
 Finance

ED (16) ( )  
 Various

EE (4) ( )  
 Town Clerk

EF (16) ( )  
 Base Building  
 Custodial

CONTROL SKD  
 Possible 25 needed  
 Under Same  
 Control Key

Ledger:

### Notes to Medeco Key Records

This is concept schematic for the school district overall plan for future.  
 Initial order is for the master "E" for the Town Hall  
**DO NOT MAKE / extend any other master series at this time.**  
 6 Pin using , SFIC, Sargent LFRC type cores, and conventional  
 cylinders.  
 Request total of three (3) sliders

### Master "A" SCHOOLS Exterior AND Utility / Base Building / Mechanical}

- Exterior AND Utility rooms all wing - i.e. janitor closets, storage, electrical rooms, emergency electric, mechanical rooms, pump rooms, boiler room, roof access, elevator machine room, interior roll up doors and grates, etc.

#### THEORETICAL EXTENSIONS

- AA-1 General Exterior
- AA-2 Recess Door if used
- AA-3 Spare
- AA-4 Smart Start Exterior
- AA-5 Electrical
- AA-6 Mechanical
- AA-7 Elevator Machine
- AA-8 Cross corridor exit devices / Exterior cylinder dogs
- AA-9 Roof Access
- AA-10 ?? IT CLOSETS

#### SECURED AREAS

A-1 All card readers

Plumbing

A-2

A-3

A-4

A-5

BB-2 Mason

BB-3 Carpenter

#### SHOPS

BB-1

Ledger:

AAB (16) (10)  
 1<sup>ST</sup> Floor

Red is number of combinations for group.  
 Grey number of actual assigned combinations on initial order.

Size of Master groups; Use exponent of "5"  
 4, 16, 64, 256, 1024, 4,096,.